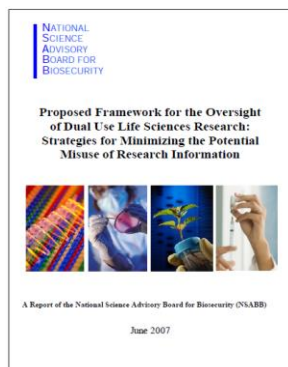


National Science Advisory Board for Biosecurity

Reports and Activities

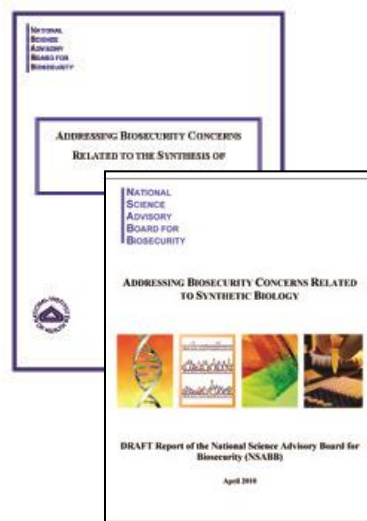
The National Science Advisory Board for Biosecurity (NSABB) advises the U.S. government (USG) on strategies for the effective oversight of dual use life sciences research.



Proposed Framework for the Oversight of Dual Use Life Sciences Research: Strategies for Minimizing the Potential Misuse of Research Information (June 2007) In this seminal report, the NSABB proposed an oversight framework for the identification, review, conduct, and communication of life sciences research with dual use potential. The proposed framework relies primarily on the local oversight of dual use research. The Board also developed a series of tools to help researchers and institutions assess and manage risks associated with the potential misuse of dual use research of concern.

Addressing Biosecurity Concerns Related to the Synthesis of Select Agents (December 2006)

The Board examined the potential biosecurity concerns raised by the ability to synthesize select agents and recommended strategies for addressing these concerns. In particular, the Board recommended that standards and practices for screening nucleic acid sequences be developed and employed by companies that synthesize nucleic acids. The NSABB also advocated a review of current biosafety guidelines to ensure that they are adequate for synthetically derived DNA.



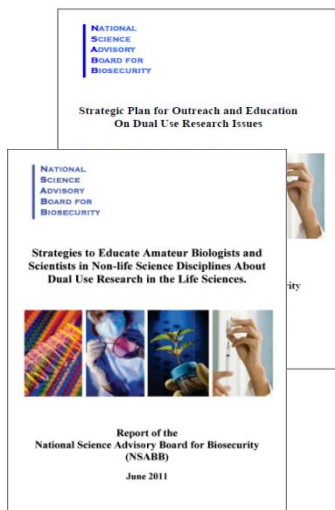
Addressing Biosecurity Concerns Related to Synthetic Biology (April 2010)

The Board recommended that synthetic biology research be subject to institutional review and oversight and notes that their proposed oversight framework for dual use life sciences research, which focuses on local level oversight, should adequately address much of this type of research.

Strategic Plan for Outreach and Education on Dual Use Research Issues (December 2008)

Raising awareness about dual use research issues is an essential element to oversight. The Board's strategic plan for outreach and education to raise awareness about dual use research issues. It identifies target audiences, key message points, and appropriate vehicles for disseminating information about dual use research issues. The proposed outreach strategies include engaging opinion leaders who can effectively promote the awareness of dual use issues as well as engaging the scientific communities directly through professional societies and associations.

Strategies To Educate Amateur Biologists and Scientists in Non-life Science Disciplines About Dual Use Research in the Life Sciences (June 2011) The board developed recommendations for promoting awareness of the dual use issue among two non-traditional audiences: (1) scientists trained in non-life science fields who collaborate in the life sciences in fields such as synthetic biology, and (2) amateur biologists who pursue life science research as an avocation. This report presents a series of observations about the special characteristics of these communities and pairs them with recommendations for specially tailored strategies for awareness building.

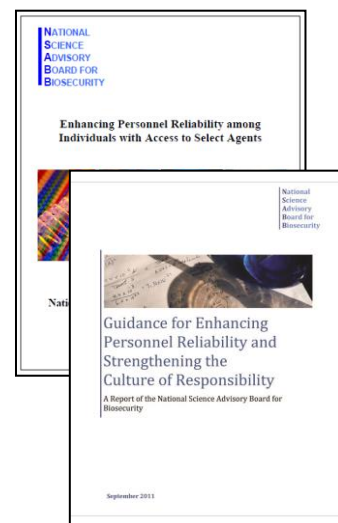


Enhancing Personnel Reliability among Individuals with Access to Select Agents (May 2009)

The NSABB found that the Select Agent Regulations already have been significantly strengthened to address the possibility of an insider threat. The Board recommended an approach to personnel reliability that augments the current Select Agent Regulations, without promulgating a formal, national personnel reliability program. A number of practical ways to enhance the culture of responsibility and reliability at institutions that conduct select agent research are also identified.

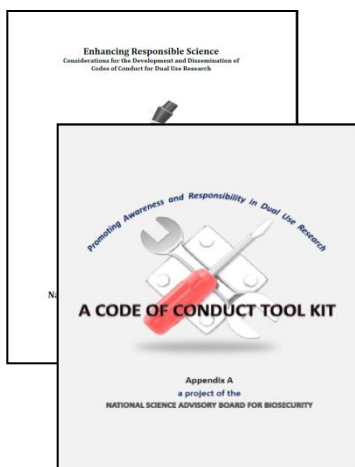
Guidance for Enhancing Personnel Reliability and Strengthening the Culture of Responsibility (September 2011)

In response to the U.S. government's request for specific strategies and guidance on practices that promote a culture of responsibility with respect to biosecurity, the Board addresses good management practices, the role of strong institutional and laboratory leadership and oversight, responsible hiring and employee management practices, and the need to assess the effectiveness, potential impact, and unintended consequences of any measures being implemented.

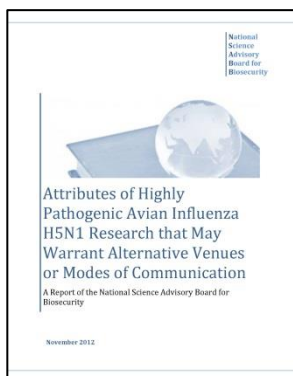
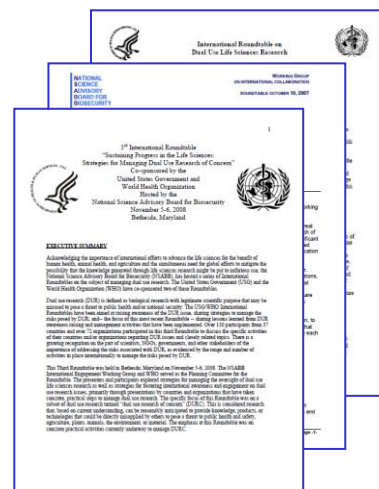


Enhancing Responsible Science - Considerations for the Development and Dissemination of Codes of Conduct for Dual Use Research (February 2012)

This report was undertaken in response to the United States Government's request for advice on the development, utilization and promotion of codes of conduct for dual use research to interdisciplinary life scientists, and relevant professional groups. The Board addresses strategies to develop a code of conduct, the importance of strong institutional support for such endeavor, considerations for the dissemination of a code of conduct, and the need to assess the effectiveness of a code of conduct overtime. The report also provides two tools for developing a code of conduct: a toolkit that includes concrete steps in developing and disseminating a code of conduct for dual use research and an educational module on dual use research.



International Engagement on Dual Use Research A major aim of the USG is to promote awareness about dual use research issues among the international community and to facilitate international engagement and information sharing on strategies for managing risks posed by dual use life sciences research of concern. The NSABB has hosted numerous international engagement activities. Summaries of these events and additional information (including archived Webcasts, Webinars, and videoteleconferences) are available on the NSABB's website.



Attributes of Highly Pathogenic Avian Influenza H5N1 Research that May Warrant Alternative Venues or Modes of Communication.

The challenge of responsibly communicating HPAI DURC is a global one, and finding a solution that both mitigates risks and allows for the advancement of influenza research will require global input and cooperation. This report addressed two key questions. Firstly, what are the attributes of HPAI H5N1 DURC that may warrant alternative venues or modes of communication? Secondly, what elements should underpin international discussions of the responsible communication of HPAI H5N1 DURC?